Message

From: Hodgkiss, Miranda [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9D441DDB44AC4ED486058D2C2690B977-HODGKISS, MIRANDA]

Sent: 11/6/2018 10:15:10 PM

To: Butcher, Jon [Jon.Butcher@tetratech.com]; Schmidt, Michelle [Michelle.Schmidt@tetratech.com]

Subject: RE: WARSEM

Ok, thanks for letting me know!

From: Butcher, Jon < Jon.Butcher@tetratech.com> Sent: Tuesday, November 6, 2018 12:45 PM

To: Schmidt, Michelle <Michelle.Schmidt@tetratech.com>; Hodgkiss, Miranda <Hodgkiss.Miranda@epa.gov>

Subject: RE: WARSEM

While WARSEM may no longer be available, the NCASI SEDMODL2 is "essentially a computer-generated version of the Washington surface road erosion model" that works in a GIS environment. I downloaded a copy of the model and documentation to our Tools folder.

It turns out that it was Mary Raines, consultant to the Squaxin Tribe, who did the WARSEM runs as part of the Deschutes River Mainstem Bank Erosion study, not Ecology. Thus we do not need to request WARSEM from Ecology. Further, Raines report suggests "a more detailed assessment of the fine sediment contribution from roads" ought to be undertaken with SEDMODL 2.

Dr. Jon Butcher, P.H. Director

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From: Butcher, Jon

Sent: Monday, November 05, 2018 2:46 PM

To: Schmidt, Michelle < Michelle. Schmidt@tetratech.com>

Subject: WARSEM

I downloaded the user manual for the Washington Road Surface Erosion Model (WARSEM) to O:\Projects\WA\Deschutes\Source\Reference\warsem_manual.pdf. The download link for the model (an Access database application) at https://www.dnr.wa.gov/washington-road-surface-erosion-model seems to be disabled – possibly because of compatibility issues with newer versions of Access.

Dr. Jon Butcher, P.H.| Director

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